ABSTRACT OF THE DISCLOSURE

A method is provided for increasing the accuracy of the positioning of a first object relative to a second object. The method overcomes the disadvantageous influence of thermal drift between a first and a second object during a positioning of a first object on a second object. The method finds applications in manufacturing, for example, in the manufacturing of semiconductor components. The method utilizes recognition of structures on the second object which have a minimum structure width. At a first instant, using one recognition procedure, the first object is positioned on the second object in a desired position. The relative displacement of the two objects is determined at the first instant and on at least one subsequent instant. A second recognition procedure may be used for this purpose. The second recognition procedure may have a resolution accuracy which is different than the resolution accuracy of the first resolution procedure. The second recognition procedure may be a pattern recognition method. The relative displacement determined at the second instant is used to correct the positioning of the first and second objects as necessary to maintain a desired position of the two objects.